CLAIMS

1. A method of reporting terminal information, comprising the following steps:

reporting, by a terminal device, terminal information through a software program interface provided by a Device Management (DM) Agent module;

forwarding, by said DM Agent module, said terminal information to a DM Server; and reporting, by said DM Server, said terminal information to a Maintenance Unit (MU).

2. The method as in claim 1, wherein said software program interface comprises a messaging interface, a file interface, an API, or a Web service interface.

3. The method as in claim 2, wherein said messaging interface comprises an XML interface or a network protocol interface.

4. The method as in claim 2, wherein when said software program interface employs the API, the terminal information is combined into an XML format and is transmitted to the API as an argument.

5. The method as in claim 1, wherein said DM Agent module transmits said terminal information via an extended Open Mobile Alliance DM (OMA DM) protocol.

6. The method as in claim 5, wherein the transmission of said terminal information by said DM Agent module is implemented:

with a command of the extend OMA DM protocol which supports active event triggered by clients; or

by said DM Agent module is implemented by extending a standard command of the OMA DM protocol into a terminal information reporting command; or

by adding a special terminal information reporting command into the OMA DM protocol; or

with a command of the OMA DM protocol directly.

5 7. The method as in any of claim 1 to 6, wherein said terminal information comprises error information created during the operation of the terminal software, error information created by the terminal hardware, and process information created during the operation of the terminal.

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8. A method for maintaining terminal device, comprising the following steps:

reporting, by a terminal device, terminal information through a software program interface provided by a Device Management (DM)

15 Agent module;

forwarding, by said DM Agent module, said terminal information to a DM Server;

reporting, by said DM Server, said terminal information to a Maintenance Unit (MU);

20 upon receiving said terminal information, determining, by said MU, the corresponding software update package and sending said software update package to the DM Server;

maintaining, by said DM Server, the terminal device with said software update package following an OMA DM process.

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9. The method as in claim 8, upon receiving said terminal information, judging, by said DM Server, whether the terminal device can be maintained automatically;

if the judgment is "Yes", maintaining, by said DM Server, the

30 terminal device directly following the OMA DM process;

otherwise the method proceeds to the subsequent steps.

10. The method as in claim 8, wherein said software program interface

comprises a network protocol interface, an XML interface, or an API.

11. The method as in claim 10, wherein when said software program interface employs the API, terminal device program will combine the terminal information into an XML format and send the combined terminal information to the API as an argument.

12. The method as in claim 8, wherein said DM Agent module transmits said terminal information via an extended OMA DM protocol.

13. The method as in claim 12, wherein the transmission of said terminal information by said DM Agent module is implemented:

with commands supporting active event triggered by clients in the extend OMA DM protocol; or

by extending a standard command of OMA DM protocol into a terminal information reporting command; or

by adding a special terminal information reporting command into the OMA DM protocol; or

with a command of the OMA DM protocol directly.

14. The method as in any of claim 8 to 13, wherein said terminal information comprises error information created during operation of the terminal software, error information created by terminal hardware, and process information created during operation of the terminal.

15. A Device Management (DM) system, comprising a DM Server adapted to manage a terminal device, a DM Agent module located in the terminal device and interacting with said DM Server; said Device Management system further comprising a Maintenance Unit (MU) coupled to said DM Server and adapted to acquire, store, and maintain the information of the terminal device;

said DM Agent modules and said DM Server have a software program

interface respectively;

the software program interface of said DM Agent module is adapted to receive the terminal information reported from the terminal device and forward the terminal information to the DM Server; said DM Server reports said terminal information to said MU.

16. The DM system as in claim 15, wherein said software program interface comprises a messaging interface, a file interface, an API, or a Web service interface.